Training at the Postgraduate Level for Medical Librarians

A Review*

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ABSTRACT

Postgraduate education for medical librarians is approachable from several perspectives, including internships, certificate programs, and continuing education programs. The diverse population of medical library personnel calls for a varied yet coordinated system of postgraduate education involving the Medical Library Association, regional medical libraries, library schools, and the National Library of Medicine, in addition to active participation by all librarians in the health sciences field. Basic philosophies for each of the major types of programs are discussed and recommendations for future training of health sciences librarians are provided.

ALTHOUGH the historical aspects of education for medical librarianship have been covered in detail by Darling [1], Brodman [2], and Doe [3], a brief review is in order to provide some perspective for the discussion which follows. As early as 1925, Richard O. Beard at the University of Minnesota devised a special program involving three years of undergraduate collegiate study specializing in biology and social service, one year of general library training, and a fifth year devoted to the theory and practice of hospital library service. This program appears advanced, and it must, indeed, have been ahead of its time, because it was discontinued after a few years due to the absence of any applicants. The University of Minnesota tried again, however, in 1937 and offered the first course dedicated to medical librarianship—this time emphasizing patients' libraries. It is commonly considered that the next course, started in 1939 at Columbia University, covering medical bibliography and reference, was the first "real" course in medical librarianship. Since that time courses in medical librarianship have been offered in library schools all over the country. According to MLA figures, there are now approximately ninety courses in forty-seven accredited library schools. By comparison, only sixteen library schools offered course work in medical librarianship in 1966.

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INTERNSHIP PROGRAMS

The internship concept of an intensive learning experience based in a particular institution and including extensive practical experience in conjunction with theoretical training was soon to follow the introduction of library school courses. In 1942 Mary Louise Marshall at Tulane's Rudolph Matas–Orleans Parish Medical Society Library implemented a twelve-month program. Two years later, in 1944, a similar program was initiated at Vanderbilt University School of Medicine Library by Eileen Cunningham, and in 1957 the National Library of Medicine (NLM) program began. Although the content of these early programs differed as a result of the varying characteristics of the particular host library, the intent of the three programs was similar.

During the more than twenty years since 1957, the number of institutions offering internships has fluctuated greatly, from as few as one to as many as eight programs. The Medical Library Assistance Act of 1965 provided impetus for medical library education by authorizing federal support specifically for the purpose of training librarians to serve the intensely information-dependent health care field. It also authorized the establishment of the regional medical library programs, which developed continuing education and training programs for various categories of health professionals, including librarians.

These more recent internship programs also varied according to the nature of the host library,

but they all were similar in philosophy and purpose. Although the M.L.S. degree was a prerequisite for all the programs, the prior completion of library school courses in medical librarianship was not considered a prerequisite to the programs; the internship programs provided an alternate pathway for entering the field. As a result, a fairly wide variety of academic disciplines was reflected in the backgrounds of the participants.

The overall objectives of the programs consisted of nine major categories, identified by Roper [4,5] from questionnaires sent to former interns:

1. An overview of medical library operations;
2. Knowledge of biomedical librarianship and biomedical sciences;
3. Professional attitude;
4. Computer applications;
5. Research methods;
6. Administrative experience;
7. Insight into user needs;
8. Familiarity with library resources in the biomedical sciences; and
9. Knowledge of the biomedical field.

In general, these objectives provided an integration of theory with practical experience.

The programs all included departmental rotations, seminars, visits to other libraries, attendance at professional meetings, and either required or encouraged course work in languages and scientific areas. In addition, some of the internships included practical experience with researchers, automation projects, individual research projects, and practicums in another type of library. All of the internship programs were for one-year periods.

A major philosophy supporting the internship concept is the belief that the practical-theoretical combination will provide the library interns with experience and the confidence and ability to adapt to the rapidly changing environment in the health care field.

Federal support was discontinued in 1974 for all these programs except the one at NLM. The academic programs trained just over one hundred interns and the NLM Intern and Associate Programs have trained sixty-one.

The scarcity of trained entry-level medical librarians no longer prevails, due to the incorporation of medical library and bibliography courses in many library school curricula. The great need now is for experienced librarians with training in management and administration. Recognizing this need, NLM, through the Council on Library Resources Fellowship Program, is sponsoring a new series of internships emphasizing various administrative techniques to aid in the professional development of midcareer librarians who have shown evidence of leadership potential.

Concurrently, MLA is seeking support for a Conference on Management Training for medical librarians. Representatives from library schools and MLA will meet together to discuss programs for training in general management and administrative theory, in addition to such specifics as group dynamics, leadership styles, program planning, budgeting methods, and analytical techniques for evaluating effectiveness.

Academic Programs

A second type of postgraduate education for health sciences librarians involves the post-master's specialist or certificate programs that exist under various names in twenty-four of the fifty-eight ALA-accredited library schools. These programs vary greatly in their orientation [6]: in some schools the sixth year is designed for midcareer rejuvenation, in others it is seen as a step toward a doctorate. The admission requirements also differ in their inclusion of professional experience, foreign languages, and test scores. Course and thesis requirements are similarly varied, as are residency requirements. The one requirement that does appear to be uniform among all of the programs is that the participants have a master's degree in library science or an equivalent degree in library or information science. Although the programs are geared primarily toward the practicing librarian, some students do enroll directly upon completing library school. These programs provide an excellent mechanism for changing career direction.

Continuing Education Programs

The continuing education (CE) needs of medical librarians today are as varied as are their backgrounds. The areas of responsibility are fairly clearly defined between MLA and the regional medical libraries (RMLs). MLA concentrates on CE for professional librarians, while RMLs emphasize training for library personnel without a formal background in library and information sciences.

In 1958 the first MLA CE courses were designated "refresher courses" and were scheduled, as with current practice, in concurrence with the annual meeting. Participants chose from among several two-hour courses. The program was so successful that expansion was desirable. The program has continued to grow and develop. At

present most courses consist of one-day sessions, though there is an occasional institute lasting several days. These MLA courses tend to be geared toward the professional and experienced librarian and focus on fairly specific aspects of library work.

Several suggestions [7–9] are being considered as to how MLA should respond to the immediate need of providing courses that are pertinent for a wide variety of librarians, including:

1. Courses designed to help those preparing for initial certification;
2. A series aimed at different levels of experience and expertise;
3. Inclusion of more topical, possibly "one-time" courses;
4. Provision of a wider variety of teaching materials, including those appropriate for self-study;
5. Development of a more extensive roster of teachers;
6. A more equitable geographic distribution of courses.

The educational programs offered by RMLs tend to differ from MLA's CE courses in that they consist, for the most part, of introductory material geared toward library personnel without a background in health sciences librarianship. The most popular topics are hospital library management, consortia development, and basic reference sources.

On-Line Training Programs

A relatively recent development in the field of medical librarianship requiring extensive postgraduate education is the area of on-line data base searching. For the health sciences librarian the systems of primary interest are those of the System Development Corporation, Bibliographic Retrieval Services (BRS), Inc., Lockheed Information Systems, and NLM. Most of the training for the commercial systems consists of one- to two-day workshops, some of which are oriented to the use of the particular system, while others focus on the use of specific data bases. Workshops are held in major cities about the country, and BRS arranges to come to particular institutions on request.

The National Library of Medicine has developed an extensive on-line training program centered both at NLM in Bethesda, and since 1972 at the regional medical library at UCLA, with training sessions and one-day updates held as needed in various other cities around the country. At NLM training for computer searching has changed considerably since its onset in 1965. The first MEDLARS training classes were tailored somewhat according to the amount of time the students could spend at NLM—generally four to six months. Half of the period was spent on indexing instructions, with the remainder used for learning the techniques of formulating searches for batch–off-line retrieval.

Comparing the three-week response time of the "batch" era with the immediate on-line response of today is one measure of the advancement in automation technology. Another improvement is the decrease in the length of the training sessions to two one-week sessions (an introductory basic course and an advanced course). Because MEDLARS is now an interactive retrieval system, a one-week course is feasible in conjunction with *MEDLEARN*. *MEDLEARN* is a computer-assisted instruction (CAI) program available since late 1976. It combines tutorial dialogue, drill and practice, and testing and simulations [10].

In comparing the old batch method with the present interactive system, the difference in the number of searchers trained is also remarkable. Approximately ninety-nine individuals received training in seven years of MEDLARS courses, while over two thousand people were given on-line training at NLM and elsewhere in the seven years from 1972 through 1978.

A major training activity underway at NLM at this time is the development of additional CAI programs—for example, a CAI program for the toxicology data base, TOXLEARN, and for the chemical data base, CHEMLEARN. Another concern is the production of CE courses designed to provide current awareness of new advances for on-line searchers of the NLM systems [11].

Since 1976 strong support of on-line training has come from SCORE (Standing Committee for On-line Retrieval Education). Composed of representatives from the medical library network, SCORE concentrates on CE activities that increase and update skills in subject area searching, as well as techniques for search efficiency. Just recently MLA has started to award continuing education units credit for these on-line courses. On-line training courses are yet another CE activity that is making a significant contribution to postgraduate education.

Postgraduate Training Activities in Other Fields

Other professions also feel pressure for CE, and probably for the same reason librarianship does—

societal changes and rapid expansion of new technologies.

In fields such as medicine, dentistry, and nursing, the main interest of the professional associations is in the accreditation of organizations or schools and state associations that sponsor and develop CE programs. Although a national association may also sponsor courses or workshops, the major responsibilities for preparing actual courses rest on institutions, while the national association works toward standardization of postgraduate training.

In the report "Lifetime learning for physicians," sponsored by the American Medical Association, B. V. Dryer states that "continuing education is one of the most important problems facing medical education today," and urges a program design that will meet long-range, comprehensive needs [12].

Dentistry is the only discipline that requires some form of CE for license renewal, and these requirements currently exist only in a few states. The American Dental Association maintains a CE Registry and staff to advise state associations on developing CE programs.

The National League for Nursing and the American Nurses Association have well-developed CE programs at professional and paraprofessional levels. They feel there is a direct relationship between the quality of CE and the quality of nursing practice.

Also involved in educational programs are the area health education centers, which cover the whole spectrum of training for health professionals. These centers are used as primary and CE resources.

CE in the fields of law and engineering varies greatly in format and availability and is less organized than in scientific areas. Postgraduate education in law has progressed in much the same fashion as in medicine, but more slowly. It has been written that, "among professional people, only lawyers begin their careers knowing so little and having to learn so much" [13]. Currently, the American Bar Association and the American Law Institute jointly sponsor national CE programs designed to aid experienced lawyers in obtaining proficiency in specific fields.

The Landis Report [14], summarizing the major efforts in this area in engineering, found that CE programs lacked support from management in terms of budget and attitude and were sponsored by a variety of institutions, societies, and agencies, with no one group responsible for overall coordination.

In the library field major efforts toward developing extensive CE programs are being made from several directions [15, 16]. CLENE, the Continuing Library Education Network and Exchange, attempts to improve access to CE opportunities for all personnel in library and information sciences and to create an awareness on the part of employers and employees of the need for CE. In order to meet these challenges, CLENE provides an open forum for exchanging ideas and includes representatives from professional organizations, schools, and libraries. The program consists of: (1) an assessment of the needs and a definition of existing and future problems, (2) acquisition and exchange of information, and (3) program and resource development.

The American Library Association has a relatively small program of its own, but is participating in CLENE and wishes to promote CE in conjunction with library schools and other groups. ALA's Office of Library Personnel Resources, which has developed a small number of preconference and conference activities, issues a catalog of announcements of workshops, courses, and readings in the field, but that is the extent of ALA's involvement in CE at the present time.

The Special Libraries Association (SLA) has offered CE courses as a regular part of its conferences since 1969, but the major thrust of its programs has been at the local level [15]. SLA is currently planning to expand its national program [16].

Two smaller organizations that have been making intensive efforts toward CE for librarians are the Western Interstate Commission for Higher Education (WICHE) and the Southwestern Library Association (SWLA). WICHE's main emphasis is on the development of learning packages, which range from slide/cassette presentations to complete workshops and cover such topics as management by objectives, reference, and interlibrary loan. SWLA established the Continuing Education for Library Staffs in the Southwest Project and, in conjunction with funding by state agencies in Arizona, Arkansas, Louisiana, New Mexico, Oklahoma, and Texas, originates and coordinates programs and acts as a clearinghouse for CE materials [15].

In the library field at this time, health sciences libraries have the most comprehensive postgraduate education programs.

What is tomorrow's direction for postgraduate education for librarians? What is the role of tomorrow's health sciences librarian? The role

may vary with the type of institution served, but questions concerning the impact of changing relationships between librarians, health professionals, and laymen must be faced by every member of our profession. New approaches in the education of health sciences librarians are made necessary by the rapid growth of medical knowledge and changing patterns of medical care. As the practice of the health sciences becomes both more specialized and more comprehensive, practitioners and researchers will place increasing demands on library systems.

In addition to these technological developments, the change in the mission, or goal, of librarians has significant implications for the library manager. In his 1975 address to ALA, Peter Drucker discussed the basic changes in librarianship that are occurring as a result of the shift away from "book worship" to the provision of information services. There is an immense difference between the concept of the library as a warehouse and that of the library as a major organizational component and disseminator of information. The role of library managers is growing increasingly complex—balancing demands for accountability and organizational effectiveness with those of patrons and library staff while trying to compete effectively within the organization for programs and funds. In many libraries the managerial mode is to cope on a day-to-day basis. Alvin Toffler in *Future Shock,* discussing the problems of individuals in a rapidly changing society and the struggle to cope with the deluge of highly transient information, notes that "the more rapidly changing and novel the environment, the more information the individual needs to process in order to make effective, rational decisions" [17].

To what level should we educate for medical librarianship? What does the year 2000 hold for librarians? Will it appear as Marshall McLuhan's "Age of Anxiety," in which we will still be doing today's job with yesterday's tools—with yesterday's concepts?

There is an accepted value in formal education at an accredited library school for obtaining an overview of many different methods and theories. Internship training is vital as a time for testing theoretical knowledge, investigating specific problems, and providing perspective in a less formal, real-world situation. MLA CE courses and RML educational endeavors are necessary for grassroots, close-to-home training in management theory, basic library technology, new technological developments, and new concepts.

As long as the fields of automation, library and information sciences, media, and medical science continue to grow professional librarians must also continue to enlarge their horizons. Regardless of the format of training, we must train for the future, as well as for the present.

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